

II. CLAIM AMENDMENTS

1. (Currently Amended) A method of communicating between an access point of a short range rf network and a user terminal of the short range rf network, wherein the method comprises:

~~using operating~~ a first short range rf transceiver at the access point for access communication with a user terminal for communicating information relating to establishment of a connection with the user terminal, and

~~using operating~~ a second short range rf transceiver at the access point for user data communication for communicating ~~user~~ data with the user terminal relating to the established connection with the user terminal.

2. (Currently Amended) A method according to claim 1, wherein the method comprises transferring the information relating to the establishment of a connection from the first transceiver to the second transceiver before communicating ~~user~~ data with the second transceiver.

3. (Original) A method according to claim 2, wherein the method comprises establishing a communication bus between the first and the second transceiver and transferring the information relating to the establishment of a connection over said communication bus.

4. (Previously Presented) A method according to claim 2, wherein the information relating to the establishment of a connection comprises identification information of the user terminal.

5. (Currently Amended) A method according to claim 1, wherein the method comprises

establishing a first communication link between the first transceiver and the user terminal, and communicating the information ~~in relation~~ relating to the establishment of a connection with the user terminal over the first communication link, and

establishing a second communication link between the second transceiver and the user terminal, and communicating ~~user~~ data with the user terminal over the second communication link.

6. (Currently Amended) A method according to claim 1, wherein the communication of information for the establishment of a connection with the user terminal comprises inquiries.

7. (Currently Amended) A method according to claim 1, wherein the method comprises

disconnecting the connection between the first transceiver and the user terminal before communicating ~~user~~ data between the second transceiver and the user terminal.

8. (Original) A method according to claim 1, wherein the method comprises

discovering the user terminal having entered the coverage area of the access point, and only thereafter using the first short range rf transceiver at the access point for communication with the user terminal of information for establishing the connection with the user terminal.

9. (Original) A method according to claim 1, wherein the access point is in connection with a content provider and the method comprises

transferring content of the content provider via the access point to the user terminal by using the second transceiver.

10. (Original) A method according to claim 1, wherein the first and the second transceiver have different baseband addresses.

11. (Previously Presented) A method according to claim 2, wherein the information relating to the establishment of a connection comprises the baseband address of the user terminal, clock offset information informing the offset in the clock between the access point and the user terminal, and information on which services are supported by the user terminal.

12. (Original) A method according to claim 1, wherein short range rf network utilises short range rf communication according to the Bluetooth standard.

13. (Original) A method according to claim 1, wherein the user terminal is one of a mobile phone capable of communicating also over a cellular phone network, a personal digital assistant, a gamepad, a browser and a computer.

14. (Original) A method according to claim 1, wherein the method comprises

the access point performing access communication and user data communication with a plurality of user terminals,

detecting the load of access communication and user data communication at the access point, and

dynamically controlling the first and the second transceivers to perform one of access communication and user data communication depending on the detected load of the respective communications.

15. (Original) A method according to claim 14, wherein the method comprises

using more than two transceivers, and

dynamically controlling the number of transceivers performing access communication and the number of transceivers

performing user data communication depending on the detected load of the respective communications within the access point.

16. (Previously Presented) A method according to claim 14, wherein the method comprises

each of the transceivers communicating over a plurality of channels, and

dynamically controlling the number of channels that each of the first and the second transceivers use to perform one of access communication and user data communication depending on the detected load of the access point.

17. (Original) A method according to claim 16, wherein the method comprises

detecting an increase in the number of user terminals being in communication with the access point, and

in response thereto increasing the number of channels used for user data communication and decreasing the number of channels used for access communication.

18. (Previously Presented) A method according to claim 14, wherein the method comprises

detecting an increase in the number of user terminals being in communication with the access point, and

in response thereto increasing the number of transceivers used for user data communication and decreasing the number of transceivers used for access communication.

19. (Previously Presented) A method according to claim 14, wherein the method comprises the total number of short range rf transceivers in use being the total number of short range rf transceivers in the access point.

20. (Original) A method according to claim 1, wherein the first transceiver is dedicated to inquiries and service database requests and is discoverable and connectable to other short range rf enabled devices.

21. (Original) A method according to claim 1, wherein the second transceiver is dedicated to user data transport and is non-discoverable and is non-connectable to other short range rf enabled devices.

22. (Previously Presented) A method according to claim 14, wherein the dynamic control is based on fuzzy logic control.

23. (Currently Amended) A method according to claim 1, wherein the method comprises

detecting the number of user terminals entering and leaving the access point coverage area, and

using the number of user terminals for creation of statistical data.

24. (Original) A method according to claim 23, wherein the method comprises

performing the detection via the access communication.

25. (Previously Presented) A method according to claim 1, wherein the method comprises

detecting the rate of user data communicated within the access point within a certain period, and

using the rate for creation of statistical data.

26. (Currently Amended) A short range rf communication system comprising an access point of a short range rf network and a user terminal of the short range rf network, wherein the access point comprises:

a first short range rf transceiver for access communication with a user terminal for communicating information in relation to establishment of a connection with the user terminal, and

a second short range rf transceiver for user data communication for communicating ~~user~~—data with the user terminal relating to the established connection with the user terminal.

27. (Currently Amended) A communication system according to claim 26, wherein the access point comprises

means for transferring the information relating to the establishment of a connection from the first transceiver to the second transceiver before communicating ~~user~~—data with the second transceiver.

28. (Original) A communication system according to claim 27, wherein the access point comprises

a communication bus between the first and the second transceiver for transferring information relating to the establishment of a connection from the first transceiver to the second transceiver.

29. (Original) A communication system according to claim 26, wherein the information relating to the establishment of a connection comprises identification information of the user terminal.

30. (Currently Amended) A communication system according to claim 26, wherein the system comprises

means for disconnecting the connection between the first transceiver and the user terminal before communicating ~~user~~ data between the second transceiver and the user terminal.

31. (Original) A communication system according to claim 26, wherein the system comprises

means for discovering when the user terminal enters the coverage area of the access point, and for initiating access communication in response to having discovered entrance of the coverage area by the user terminal.

32. (Original) A communication system according to claim 26, wherein the system further comprises a content provider being in functional connection with the access point, and

means for transferring content of the content provider via the access point to the user terminal by using the second transceiver.

33. (Original) A communication system according to claim 26, wherein the first and the second transceiver have different baseband addresses.

34. (Original) A communication system according to claim 26, wherein the information relating to the establishment of a connection comprises the baseband address of the user terminal, clock offset information informing the offset in the clock between the access point and the user terminal, and information on which services are supported by the user terminal.

35. (Original) A communication system according to claim 26, wherein the system comprises means for short range rf communication according to the Bluetooth standard.

36. (Original) A communication system according to claim 26, wherein the user terminal is one of a mobile phone capable of communicating also over a cellular phone network, a personal digital assistant, a gamepad, a browser and a computer.

37. (Currently Amended) A communication system according to claim 26, wherein

the first and second transceiver ~~is~~ are adapted to perform access communication and user data communication with a plurality of user terminals, and the access point further comprises

means ~~Inquiry Estimation (IE), Speed Estimation (SE), Fuzzy Control (FC)}~~ for detecting the load of access communication and user data communication at the access point, and

means ~~(Calculation (CAL), Role Controlling (RC))~~ for dynamically controlling the first and the second transceivers to perform one of access communication and user data communication depending on the detected load of the respective communications.

38. (Currently Amended) A communication system according to claim 37, wherein the access point comprises

more than two transceivers, and

means ~~(CAL, RC)~~ for dynamically controlling the number of transceivers performing access communication and the number of transceivers performing user data communication depending on the detected load of the respective communications within the access point.

39. (Currently Amended) A communication system according to claim 37, wherein each of the transceivers is adapted to communicate over a plurality of channels, and the access point comprises

means ~~(CAL, RC)~~ for dynamically controlling the number of channels that each of the first and the second transceivers use to perform one of access communication and user data communication depending on the detected load of the access point.

40. (Currently Amended) A communication system according to claim 39, wherein the access point comprises

means ~~(IE, SE, FC)~~ for detecting an increase in the number of user terminals being in communication with the access point, and

means ~~(CAL, RC)~~ for in response to the detection of said increase, increasing the number of channels used for user data communication and decreasing the number of channels used for access communication.

41. (Currently Amended) A communication system according to claim 37, wherein the access point comprises

means ~~(IE, SE, FC)~~ for detecting an increase in the number of user terminals being in communication with the access point, and

means ~~(CAL, RC)~~ for in response to the detection of increase, increasing the number of transceivers used for user data communication and decreasing the number of transceivers used for access communication.

42. (Previously Presented) A communication system according to claim 26, wherein each transceiver comprises at least one Bluetooth chip for Bluetooth communication with other Bluetooth enabled devices.

43. (Currently Amended) An apparatus for short range rf communication with a user terminal, wherein the apparatus comprises:

a first short range rf transceiver for access communication with the user terminal for communicating information ~~for~~ relating to establishment of a connection with the user terminal, and

a second short range rf transceiver for user data communication for communicating ~~user~~-data with the user terminal relating to the established connection with the user terminal.

44. (Original) An apparatus according to claim 43, wherein the apparatus is an access point of a short range rf communication system.

45. (New) A communication system according to claim 42, wherein the system further comprises

means for detecting the number of user terminals entering and leaving the access point coverage area, and

means for using the number of user terminals for creation of statistical data.

46. (New) A communication system according to claim 45, wherein the system further comprises

means for performing the detection via the access communication.

47. (New) A communication system according to claim 26, wherein the system further comprises

means for detecting the rate of user data communicated within the access point within a certain period, and

means for using the rate for creation of statistical data.

48. (New) A computer program product embodied on a computer readable medium for communicating between an access point of a short range rf network and a user terminal of the short range rf network, the computer program product controlling a data-processing device to perform

operating a first short range rf transceiver at the access point for access communication with a user terminal for communicating information relating to establishment of a connection with the user terminal, and

operating a second short range rf transceiver at the access point for user data communication for communicating data with the user terminal relating to the established connection with the user terminal.